United States Department of Agriculture

Washington
Water Supply Outlook Report
January 1, 2008

Water Supply Outlook Reports
and
Federal - State – Private Cooperative Snow Surveys

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How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

Washington
Water Supply Outlook

January 2008

General Outlook

As La Nina years go, this one appears to be about as typical as they come. Washington started slow with snow accumulation but certainly made up for it during the last week of December and through New Years. October started the water-year with mostly above average rainfall, November fell considerably short but good precipitation in December brings us to near average for the first quarter of the water-year. Forecasters are predicting pretty close to normal conditions with some chance of above average precipitation through the end of March. Mid January also marks the average mid point for annual snow accumulation so being on track now is paramount for a successful season.

Snowpack

The January 1 statewide SNOTEL readings were 115% of average, up from only 85% just 10 days before. The Conconully Lake area snow surveys reported the lowest readings at 85% of average. Readings in the Cedar River Basin in King County reported the highest at 161% of average. Westside averages from SNOTEL, and January 1 snow surveys, included the North Puget Sound river basins with 118% of average, the Central Puget river basins with 134%, and the Lewis-Cowlitz basins with 128% of average. Snowpack along the east slopes of the Cascade Mountains included the Yakima area with 111% and the Wenatchee area with 98%. Snowpack in the Spokane River Basin was at 97% and the Walla Walla River Basin had 127% of average. Maximum snow cover in Washington was at Paradise SNOTEL near MT. Rainer, with water content of 34.4 inches. Last year at this time Paradise had 34.3 inches of snow water. The highest average in the state was at Huckleberry SNOTEL with 340% of average.

BASIN	PERCENT OF LAST YEAR	PERCENT OF AVERAGE
Spokane	105	97
Newman Lake	98	104
Pend Oreille	109	89
Okanogan	74	95
Methow	72	87
Conconully Lake	53	85
Wenatchee	75	101
Chelan	75	89
Upper Yakima	77	119
Lower Yakima	75	103
Ahtanum Creek	79	98
Walla Walla	113	127
Lower Snake	119	98
Cowlitz	93	120
Lewis	100	135
White	77	104
Green	78	119
Puyallup	88	112
Cedar	84	161
Snoqualmie	93	112
Skykomish	102	114
Skagit	74	91
Baker	N/A	N/A
Nooksack	63	146
Olympic Peninsula	60	123

Precipitation

During the month of December, the National Weather Service and Natural Resources Conservation Service climate stations reported well above average precipitation totals throughout Washington river basins. The highest percent of average in the state was at Alpine Meadow SNOTEL which reported 187% of average for a total of 29.9 inches. The average for this site is 16 inches for December. The wettest spot in the state was reported at June Lake SNOTEL with a December accumulation of 41.6 inches. Calendar year 2007 showed a range of 50-100% of normal precipitation across the state.

RIVER BASIN	DECEMBER PERCENT OF AVERAGE	WATER YEAR PERCENT OF AVERAGE
Spokane	146	111
Colville-Pend Oreille	165	116
Okanogan-Methow	150	105
Wenatchee-Chelan	140	101
Upper Yakima	130	99
Lower Yakima	145	112
Walla Walla	142	111
Lower Snake	142	112
Cowlitz-Lewis	145	108
White-Green-Puyallup	122	95
Central Puget Sound	141	107
North Puget Sound	141	104
Olympic Peninsula	174	108

Reservoir

Seasonal reservoir levels in Washington vary greatly due to specific watershed management practices required in preparation for irrigation season, fisheries management, power generation, municipal demands and flood control. Reservoir storage in the Yakima Basin was 326,000-acre feet, 82% of average for the Upper Reaches and 114,000-acre feet or 102% of average for Rimrock and Bumping Lakes. Storage at the Okanogan reservoirs was 89% of average for January 1. The power generation reservoirs included the following: Coeur d'Alene Lake, 71,000 acre feet, 65% of average and 30% of capacity; Chelan Lake, 346,000-acre feet, 87% of average and 51% of capacity; and the Skagit River reservoirs at 103% of average and 85% of capacity.

BASIN	PERCENT OF CAPACITY	CURRENT STORAGE AS PERCENT OF AVERAGE
Spokane	30	65
Colville-Pend Oreille	56	130
Okanogan-Methow	61	89
Wenatchee-Chelan	51	87
Upper Yakima	39	82
Lower Yakima	49	102
Lower Snake	65	101
Cowlitz-Lewis	N/A	N/A
North Puget Sound	85	103

For more information contact your local Natural Resources Conservation Service office.

Streamflow

Forecasts vary from 128% of average for the Teanaway River near Cle Elum to 76% of average for Snake River below Lower Granite Dam. April-September forecasts for some Western Washington streams include the Cedar River near Cedar Falls, 95%; White River, 98%; and Skagit River, 104%. Some Eastern Washington streams include the Yakima River near Parker, 100%: Wenatchee River at Plain, 101%; and Spokane River near Post Falls, 94%. Volumetric forecasts are developed using current, historic and average snowpack, precipitation and streamflow data collected and coordinated by organizations cooperating with NRCS. Caution should be used when using early season forecasts for critical water resource management decisions.

Statewide December streamflows were mostly all over the map due to the differences in stream control and local weather conditions. The Bumping River near Nile had the highest reported flows with 135% of average. The Snake River below Ice Harbor Dam with 63% of average was the lowest in the state. Other streamflows were the following percentage of average as reported by the River Forecast Center: the Cowlitz at Castle Rock, 107%; the Spokane at Spokane, 67%; the Columbia below Rock Island Dam, 87%; and the Cle Elum near Roslyn, 106%.

BASIN	PERCENT OF AVERAGE (50 PERCENT CHANCE OF EXCEEDENCE)
Spokane	90-94
Colville-Pend Oreille	78-103
Okanogan-Methow	92-95
Wenatchee-Chelan	98-101
Upper Yakima	104-128
Lower Yakima	97-105
Walla Walla	106-107
Lower Snake	76-100
Cowlitz-Lewis	95-106
White-Green-Puyallup	90-98
Central Puget Sound	85-110
North Puget Sound	102-110
Olympic Peninsula	110

STREAM	PERCENT OF AVERAGE DECEMBER STREAMFLOWS
Pend Oreille Below Box Canyon	83
Kettle at Laurier	74
Columbia at Birchbank	100
Spokane at Long Lake	65
Similkameen at Nighthawk	134
Okanogan at Tonasket	103
Methow at Pateros	92
Chelan at Chelan	124
Wenatchee at Pashastin	103
Yakima at Cle Elum	81
Yakima at Parker	94
Naches at Naches	124
Grande Ronde at Troy	64
Snake below Lower Granite Dam	69
SF Walla Walla near Milton Freewater	99
Columbia River at The Dalles	80
Lewis at Ariel	100
Cowlitz below Mayfield Dam	90
Skagit at Concrete	113
Dungeness near Sequim	108

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BASIN SUMMARY OF SNOW COURSE DATA

JANUARY 2008

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
AHTANUM R.S.	3100	1/02/08	18	3.0	3.5	3.7
ALPINE MEADOWS SNTL	3500	1/01/08	---	25.8	22.8	20.1
ASHLEY DIVIDE	4820	1/03/08	15	3.0	2.4	3.4
BADGER PASS SNOTEL	6900	1/01/08	63	14.2	13.9	15.2
BARKER LAKES SNOTEL	8250	1/01/08	27	5.6	7.5	6.7
BASIN CREEK SNOTEL	7180	1/01/08	13	2.1	3.9	3.7
BEAVER CREEK TRAIL	2200	1/01/08	54	12.6	13.0	--
BEAVER PASS	3680	12/31/07	60	13.3	13.7	--
BEAVER PASS SNOTEL	3630	1/01/08	76	16.4	31.8	18.8
BLACK PINE SNOTEL	7100	1/01/08	26	5.1	3.6	5.2
BLACKWALL PEAK CAN.	6370	1/01/08	---	15.7	25.0	15.4
BLEWETT PASS#2SNOTEL	4270	1/01/08	34	8.9	13.6	8.2
BRENDA MINE CAN.	4450	1/01/08	---	7.0	8.2	5.9
BROWN TOP AM	6000	12/31/07	109	30.7	38.6	--
BUMPING LAKE (NEW)	3400	1/02/08	54	10.4	15.9	7.2
BUMPING RIDGE SNOTEL	4600	1/01/08	---	13.3	18.2	12.1
BUNCHGRASS MDWSNOTEL	5000	1/01/08	---	12.4	10.2	12.6
BURNT MOUNTAIN PIL	4200	1/01/08	34	6.2	7.1	5.7
BUTTERMILK BUTTE	5250	12/27/07	29	5.8	--	--
CAYUSE PASS SNOTEL	5240	1/01/08	95	25.9	36.0	--
CHESSMAN RESERVOIR	6200	12/28/07	3	.4	1.8	1.5
COLD CREEK STRIP	6020	12/31/07	20	3.8	7.2	--
COMBINATION SNOTEL	5600	1/01/08	13	2.5	1.8	2.2
COPPER BOTTOM SNOTEL	5200	1/01/08	22	3.7	3.3	5.3
CORRAL PASS SNOTEL	6000	1/01/08	52	13.6	17.1	15.8
COUGAR MTN. SNOTEL	3200	1/01/08	45	12.7	10.7	8.5
COYOTE HILL	4200	12/28/07	20	4.1	3.0	4.3
DALY CREEK SNOTEL	5780	1/01/08	29	5.4	4.4	4.9
DEVILS PARK	5900	12/31/07	80	20.8	26.8	--
DISCOVERY BASIN	7050	12/31/07	21	3.0	4.0	4.2
DIX HILL	6400	1/01/08	19	4.0	3.1	4.5
DOMMERIE FLATS	2200	1/02/08	34	7.6	8.5	3.9
DUNCAN RIDGE	5370	12/30/07	15	2.2	--	--
DUNGENESS SNOTEL	4100	1/01/08	17	4.3	7.7	3.5
ELBOW LAKE SNOTEL	3200	1/01/08	82	19.4	25.5	8.6
EMERY CREEK SNOTEL	4350	1/01/08	25	5.1	5.8	7.0
ENDERBY CAN.	5800	12/31/07	89	23.1	22.9	19.2
FARRON CAN.	4000	12/31/07	22	5.0	7.6	6.1
FISH CREEK	8000	1/03/08	16	3.4	3.5	4.4
FISH LAKE	3370	1/03/08	80	20.4	--	14.5
FISH LAKE SNOTEL	3370	1/01/08	79	16.9	20.0	15.0
FLATTOP MTN SNOTEL	6300	1/01/08	82	18.6	17.2	21.4
FOURTH OF JULY SUM	3200	12/27/07	33	6.2	4.4	3.7
FREEZEOUT CK. TRAIL	3500	1/01/08	28	6.4	9.3	--
FROHNER MDWS SNOTEL	6480	1/01/08	11	2.2	3.2	3.4
GRAVE CRK SNOTEL	4300	1/01/08	35	6.8	5.3	7.7
GREEN LAKE SNOTEL	6000	1/01/08	51	11.2	14.1	10.7
GROUSE CAMP SNOTEL	5380	1/01/08	42	8.6	14.1	9.6
HAND CREEK SNOTEL	5030	1/01/08	20	5.0	5.3	5.9
HARTS PASS SNOTEL	6500	1/01/08	80	19.7	28.1	21.7
HARTS PASS	6500	12/29/07	84	23.3	30.0	--
HELL ROARING DIVIDE	5770	12/27/07	50	11.9	7.7	13.4
HIGH RIDGE SNOTEL	4920	1/01/08	65	16.1	12.8	10.4
HOLBROOK	4530	1/02/08	20	4.2E	2.9	4.2
HOODOO BASIN SNOTEL	6050	1/01/08	95	21.5	18.3	19.3
HUCKLEBERRY SNOTEL	2000	1/01/08	19	3.4	1.6	1.0
HUMBOLDT GLCH SNOTEL	4250	1/01/08	---	8.3	5.7	6.0
IRENE'S CAMP	5530	12/30/07	25	4.8	--	--
ISINTOK LAKE CAN.	5100	12/31/07	12	2.0	3.2	3.4
JUNE LAKE SNOTEL	3200	1/01/08	101	26.9	22.3	17.1
KELLOGG PEAK	5560	1/01/08	61	14.8	13.2	11.7
KRAFT CREEK SNOTEL	4750	1/01/08	23	4.8	4.3	6.9
LAMB BUTTE		12/27/07	38	8.0	--	--
LOLO PASS SNOTEL	5240	1/01/08	77	14.5	11.4	13.0
LONE PINE SNOTEL	3800	1/01/08	92	22.5	22.5	16.2
LOOKOUT SNOTEL	5140	1/01/08	65	13.8	13.5	13.7
LOST HORSE SNOTEL	5000	1/01/08	38	8.1	10.6	8.3
LOST LAKE SNOTEL	6110	1/01/08	---	22.3	21.7	27.1
LOUP LOUP CAMPGROUND		12/26/07	18	3.8	--	--
LUBRECHT SNOTEL	4680	1/01/08	9	2.1	2.5	2.6
LYMAN LAKE SNOTEL	5900	1/01/08	109	23.0	33.0	29.7
MARIAS PASS	5250	12/28/07	25	4.7E	7.1	7.3
MARTEN RIDGE SNOTEL	3520	1/01/08	102	24.6	45.1	--
MAZAMA		12/26/07	34	6.8	--	--
MEADOWS PASS SNOTEL	3240	1/01/08	73	18.5	20.8	9.6
M F NOOKSACK SNOTEL	4980	1/01/08	78	18.5	31.6	--
MICA CREEK SNOTEL	4510	1/01/08	55	12.3	10.7	11.7
MINERS RIDGE SNOTEL	6200	1/01/08	103	24.5	27.9	26.6
MISSION CREEK CAN.	5840	1/01/08	---	7.5	8.0	9.3
MORRISSEY RIDGE CAN.	6100	1/01/08	---	10.3	--	12.4
MORSE LAKE SNOTEL	5400	1/01/08	98	24.9	33.2	23.4
MOSES MTN SNOTEL	4800	1/01/08	23	5.1	10.5	7.1
MOSQUITO RDG SNOTEL	5200	1/01/08	---	12.1	16.8	15.5
MOULTON RESERVOIR	6850	1/03/08	15	2.2	2.1	3.5
MOUNT CRAG SNOTEL	4050	1/01/08	52	12.0	23.9	11.6
MT. KOBAU CAN.	5500	12/29/07	16	2.9	10.0	5.4
MOWICH SNOTEL	3150	1/01/08	22	3.7	.2	.4
MOUNT GARDNER SNOTEL	2860	1/01/08	52	13.4	14.3	7.4
N.F. ELK CR SNOTEL	6250	1/01/08	17	3.4	4.9	5.1
NEVADA RIDGE SNOTEL	7020	1/01/08	32	6.3	5.2	6.8
NEW HOZOMEEN LAKE	2800	12/31/07	26	5.0	--	--
NEZ PERCE CMP SNOTEL	5650	1/01/08	30	5.9	4.7	5.1
NOISY BASIN SNOTEL	6040	1/01/08	57	13.3	13.0	19.8
OLALLIE MDWS SNOTEL	3960	1/01/08	86	24.9	33.7	22.2
OPHIR PARK	7150	1/01/08	22	4.6	4.4	6.6
PARADISE PARK SNOTEL	5500	1/01/08	107	34.4	34.3	32.8
PARK CK RIDGE SNOTEL	4600	1/01/08	91	23.9	31.7	22.5
PETERSON MDW SNOTEL	7200	1/01/08	18	3.4	4.4	4.4
PIGTAIL PEAK SNOTEL	5900	1/01/08	87	21.6	26.4	23.1
PIKE CREEK SNOTEL	5930	1/01/08	58	10.7	10.7	12.0
PIPESTONE PASS	7200	12/28/07	8	1.3	1.1	2.2
POPE RIDGE SNOTEL	3540	1/01/08	60	11.2	12.5	9.8
POTATO HILL SNOTEL	4500	1/01/08	81	17.2	17.5	12.4
QUARTZ PEAK SNOTEL	4700	1/01/08	---	10.6	10.8	10.2
RAGGED MTN SNOTEL	4210	1/01/08	---	11.8	12.7	--
RAINY PASS SNOTEL	4780	1/01/08	78	16.4	23.3	19.9
RAINY PASS	4780	12/29/07	75	16.9	22.8	--
REX RIVER SNOTEL	1900	1/01/08	71	19.5	24.9	13.0
ROCKER PEAK SNOTEL	8000	1/01/08	24	4.2	5.8	6.4
SADDLE MTN SNOTEL	7900	1/01/08	58	12.1	8.9	11.7
SALMON MDWS SNOTEL	4500	1/01/08	21	4.5	8.5	5.3
SASSE RIDGE SNOTEL	4200	1/01/08	186	16.3	23.2	14.7
SAVAGE PASS SNOTEL	6170	1/01/08	---	14.0	10.5	11.7
SAWMILL RIDGE SNOTEL	4630	1/01/08	63	16.0	28.1	--
SENTINEL BT SNOTEL	4920	1/01/08	14	2.3	5.6	--
SHEEP CANYON SNOTEL	4050	1/01/08	88	24.0	17.6	15.4
SHERWIN SNOTEL	3200	1/01/08	---	6.9	4.4	5.1
SKALKAHO SNOTEL	7260	1/01/08	55	11.6	9.1	10.3
SKOOKUM CREEK SNOTEL	3920	1/01/08	63	17.7	15.1	10.8
SKOOKUM LAKES	4230	12/28/07	35	8.0	5.4	--
SOURDOUGH GUL SNOTEL	4000	1/01/08	12	3.2	.8	--
SPENCER MDW SNOTEL	3400	1/01/08	82	22.4	20.7	12.5
SPIRIT LAKE SNOTEL	3100	1/01/08	34	10.6	--	3.6
SPOTTED BEAR MTN.	7000	1/02/08	21	4.1	5.0	6.9
SPRUCE SPGS SNOTEL	5700	1/01/08	41	10.1	7.8	--
STARVATION MOUNTAIN	6750	12/26/07	34	8.1	--	--
STAHL PEAK SNOTEL	6030	1/01/08	83	19.3	12.9	17.1
STAMPEDE PASS SNOTEL	3860	1/01/08	84	20.4	24.0	19.4
STEVENS PASS SNOTEL	4070	1/01/08	95	18.8	21.1	19.1
STORM LAKE	7780	12/31/07	23	4.7	5.7	5.5
SUMMERLAND RES CAN.	4200	12/28/07	25	3.9	6.0	4.5
SUNSET SNOTEL	5540	1/01/08	---	7.8	6.9	13.6
SURPRISE LKS SNOTEL	4250	1/01/08	91	22.5	25.8	20.3
SWAMP CREEK SNOTEL	4000	1/01/08	42	8.9	11.4	9.6
TEN MILE LOWER	6600	12/28/07	10	1.6	2.5	3.0
TEN MILE MIDDLE	6800	12/28/07	14	2.6	2.8	4.6
THUNDER BASIN SNOTEL	4200	1/01/08	68	16.6	23.9	15.7
THOMPSON RIDGE	4650	12/26/07	28	6.4	--	--
TINKHAM CREEK SNOTEL	3000	1/01/08	69	16.6	21.4	12.3
TOATS COULEE	2850	12/29/07	9	1.0	--	--
TOUCHET SNOTEL	5530	1/01/08	58	15.9	15.6	14.7
TRINKUS LAKE	6100	1/02/08	65	17.0	15.1	19.4
TROUGH #2 SNOTEL	5310	1/01/08	15	4.7	7.3	5.3
TRUMAN CREEK	4060	12/31/07	14	2.6	2.8	2.0
TUNNEL AVENUE	2450	1/02/08	57	13.8	15.6	8.3
TV MOUNTAIN	6800	1/02/08	34	6.9	6.5	7.7
TWELVEMILE SNOTEL	5600	1/01/08	46	9.4	5.6	7.5
TWIN LAKES SNOTEL	6400	1/01/08	91	20.1	15.8	17.5
TWIN SPIRIT DIVIDE	3480	12/29/07	32	6.3	6.1	6.6
UPPER HOLLAND LAKE	6200	1/02/08	54	11.8	10.5	15.2
UPPER WHEELER SNOTEL	4400	1/01/08	29	5.7	8.8	5.9
WARM SPRINGS SNOTEL	7800	1/01/08	42	9.3	9.4	9.4
WATERHOLE SNOTEL	5000	1/01/08	76	19.6	28.1	14.0
WEASEL DIVIDE	5450	12/27/07	49	11.5	12.9	15.2
WELLS CREEK SNOTEL	4200	1/01/08	177	13.8	24.7	14.2
WHITE PASS ES SNOTEL	4500	1/01/08	45	10.0	12.0	10.7

USDA NRCS

Natural Resources Conservation Service

Washington State
Snow, Water and Climate Services

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Helpful Internet Addresses

NRCS Snow Survey and Climate Services Homepages

Washington:
http://www.wa.nrcs.usda.gov/snow

Oregon:
http://www.or.nrcs.usda.gov/snow

Idaho:
http://www.id.nrcs.usda.gov/snow

National Water and Climate Center (NWCC):
http://www.wcc.nrcs.usda.gov

NWCC Anonymous FTP Server:
ftp.wcc.nrcs.usda.gov

USDA-NRCS Agency Homepages

Washington:
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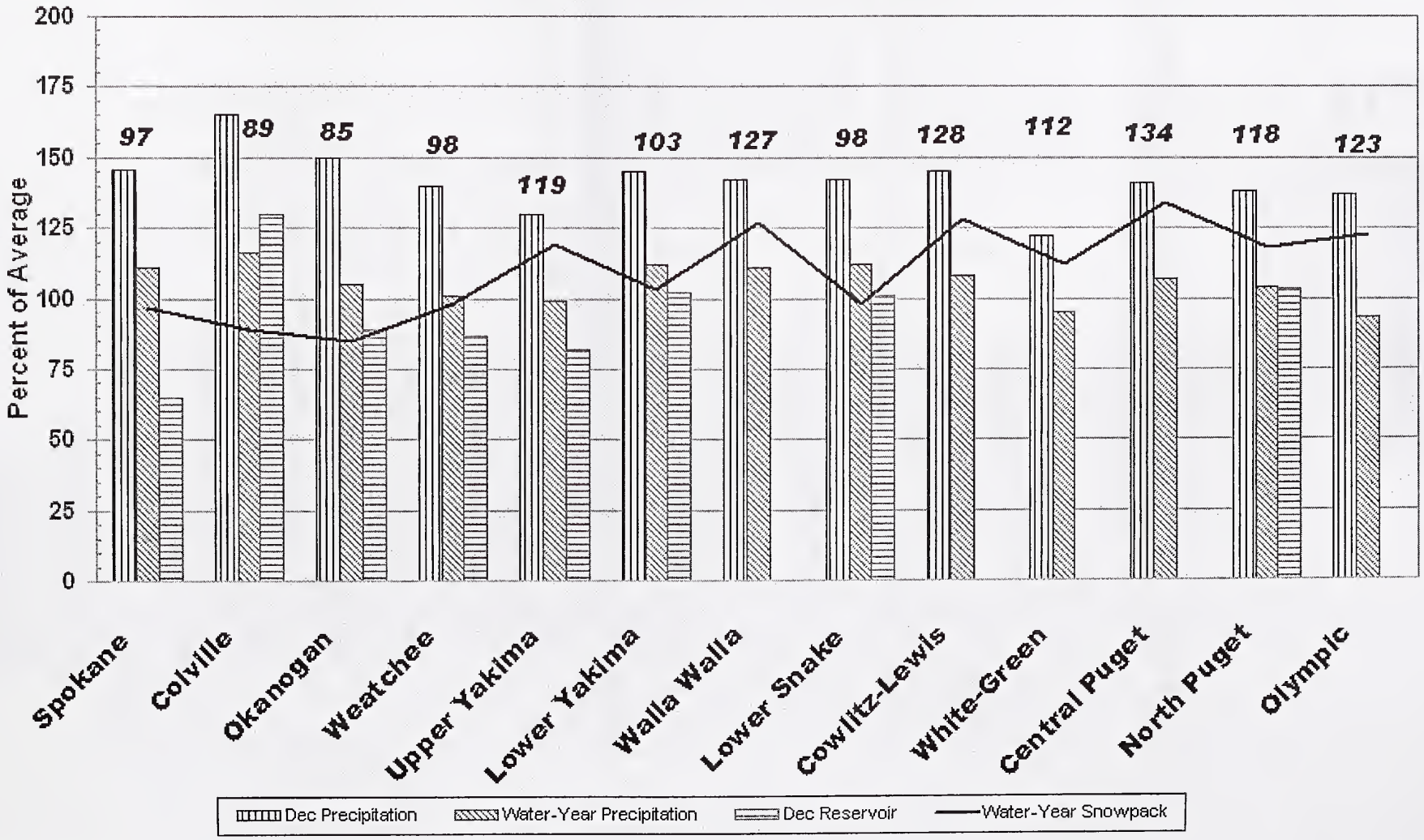
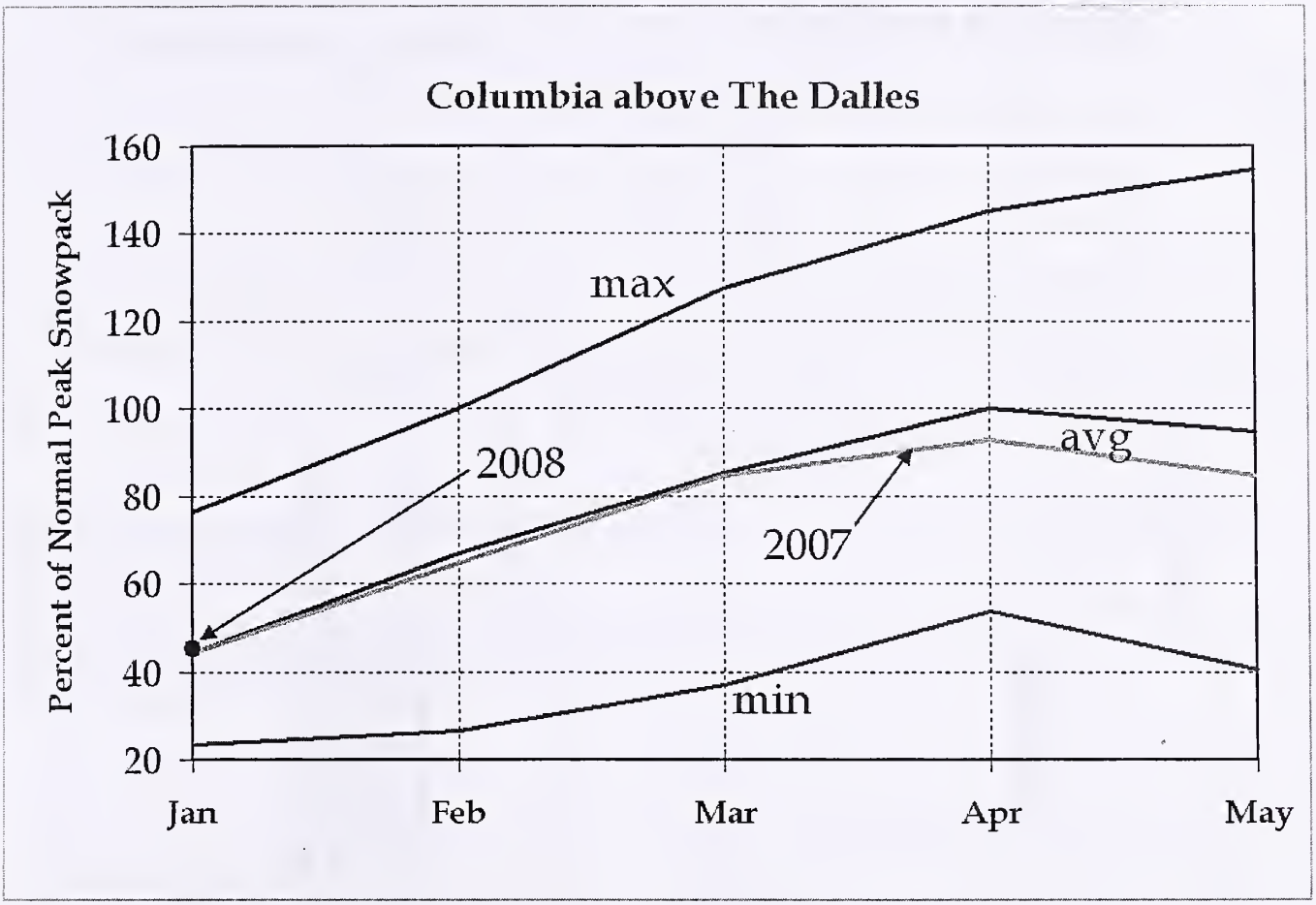
NRCS Natural Resources Conservation Service

January 1, 2008 - Snowpack, Precipitation and Reservoir Conditions at a Glance

(Water Year = October 1, 2007 - Current Date)



Columbia Basin Snowpack Summary



January 1, 2008

The Columbia Basin snowpack charts are produced, using only automated data. These data are telemetered via remote collection sites in Canada and the United States. The data are provisional, until they are officially released by the responsible data collection agency.

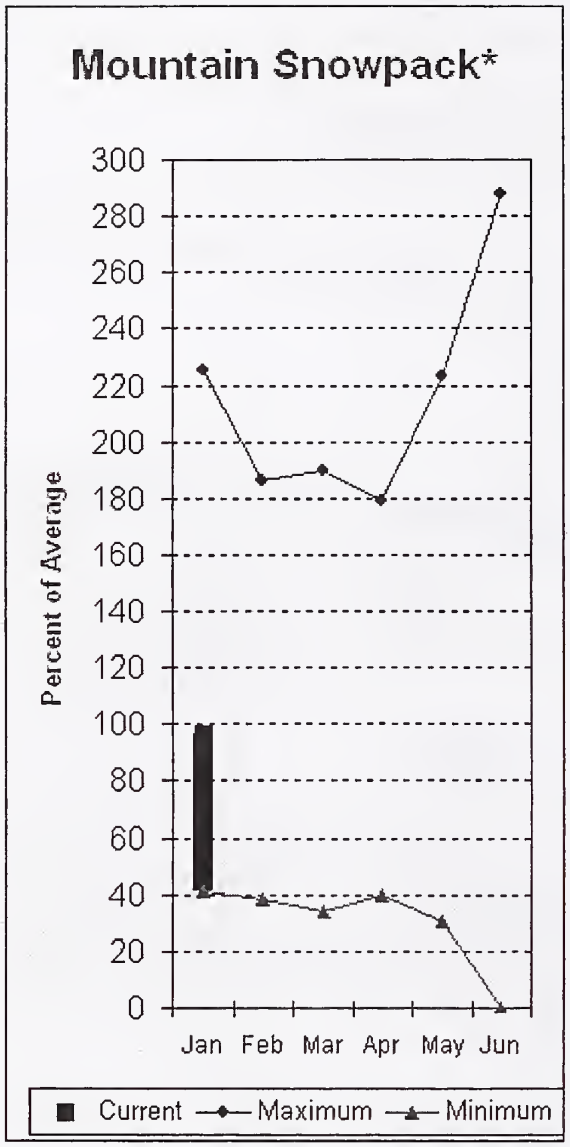
The combined Columbia Basin snowpack above The Dalles is not much different than it was last year. It is currently at 102 percent of average, compared to 100 percent of average last year. However, it has redistributed a little bit. The snow in the northern Cascades is lower than last year, but the Snake River snowpack is in much better shape. The overall snowpack is at 45 percent of the average peak accumulation. This compares to 44 percent last year.

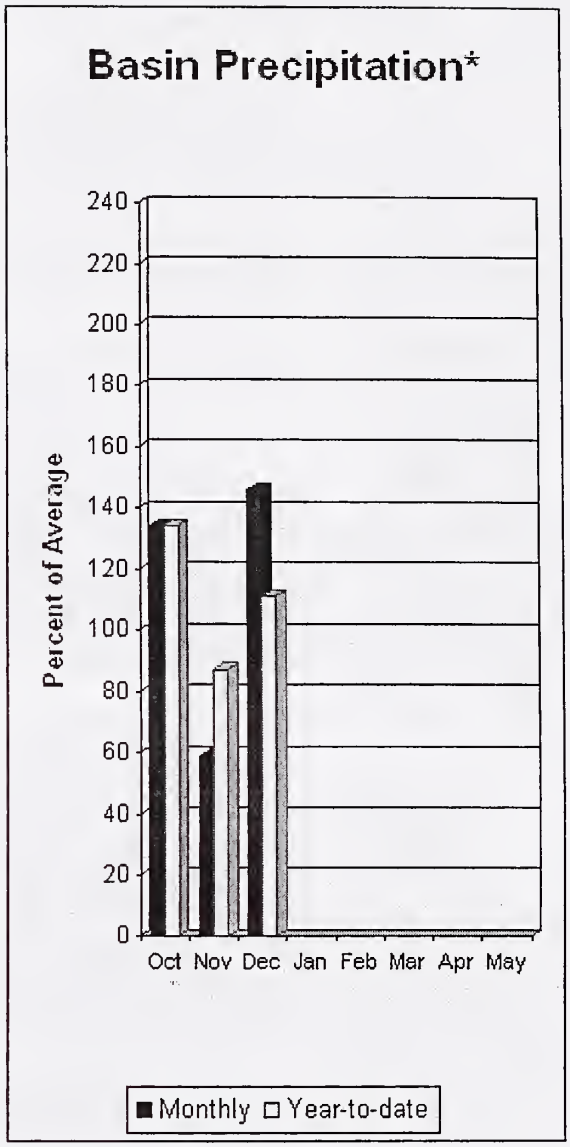
The snowpack in the Columbia Basin above Castlegar is at 108 percent of average. This compares to 107 percent last year. For the basin above Grand Coulee, the snowpack is at 103 percent of average, compared to 101 percent last year. The Snake River snowpack above Ice Harbor is at 99 percent of average, compared to 90 percent last year.

The best snowpack conditions exist in British Columbia, which is always a good sign. The snowpack in the Snake River headwaters is slightly better than last year at 85 percent, but is still the lowest in the basin.

Overall, this is a good start to the 2008 snowpack accumulation within the Columbia Basin.

Spokane River Basin





*Based on selected stations

The January 1 forecasts for summer runoff within the Spokane River Basin are 94% of average near Post Falls and 95% at Long Lake. The Chamokane River near Long Lake forecasted to have 90% of average flows for the May-August period. The forecast is based on a basin snowpack that is 97% of average and precipitation that is 111% of average for the water year. Precipitation for December was above normal at 146% of average. Streamflow on the Spokane River at Long Lake was 65% of average for December. January 1 storage in Coeur d'Alene Lake was 71,000acre feet, 65% of average and 30% of capacity. Snowpack at Quartz Peak SNOTEL site was 104% of average with 10.6 inches of water content. Average temperatures in the Spokane basin were 2 degrees above normal for December and 1 degree above normal for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - January 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SPOKANE near Post Falls (2)	APR-JUL	1671	2087	2370	93	2653	3069	2550
	APR-SEP	1828	2216	2480	94	2744	3132	2650
SPOKANE at Long Lake (2)	APR-JUL	1609	2247	2680	94	3113	3751	2850
	APR-SEP	1791	2463	2920	95	3377	4049	3070
CHAMOKANE CREEK near Long Lake	MAY-AUG	2.4	6.5	9.2	90	11.9	16.0	10.2

SPOKANE RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

SPOKANE RIVER BASIN
Watershed Snowpack Analysis - January 1, 2008

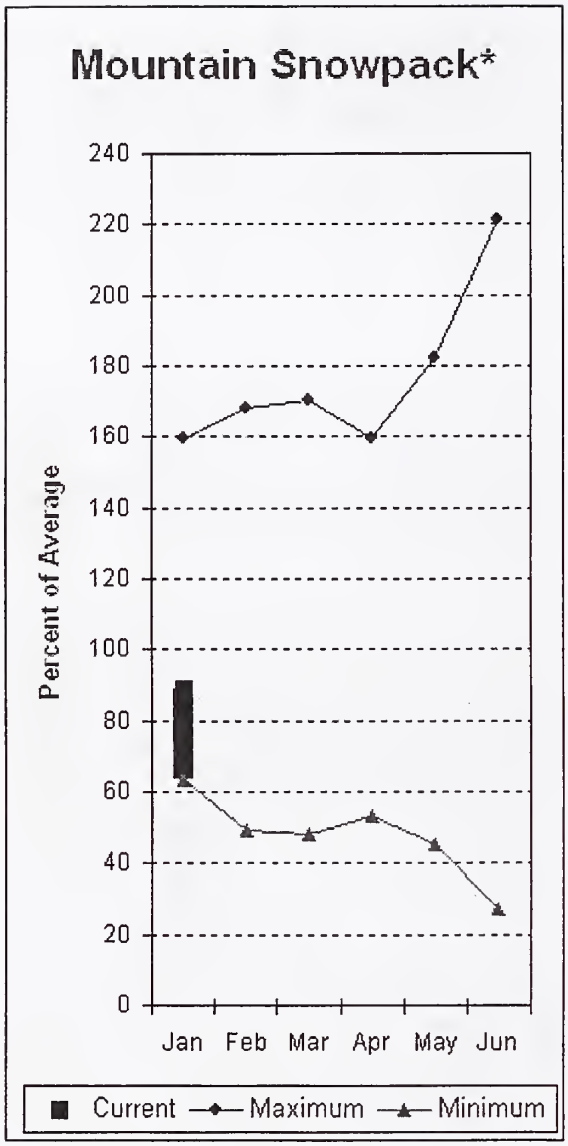
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
SPOKANE RIVER	11	105	97
NEWMAN LAKE	1	98	104

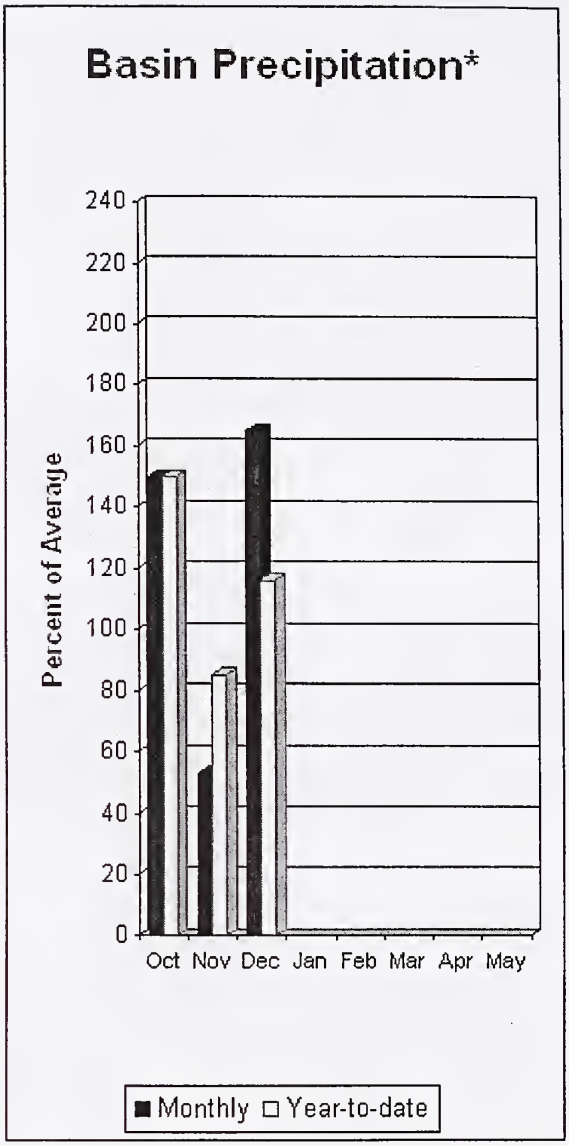
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level.

Colville - Pend Oreille River Basins





*Based on selected stations

The April – September average forecast for the Kettle River streamflow is 95%, Colville at Kettle Falls is 78% and Priest River near the town of Priest River is 94%. December streamflow was 83% of average on the Pend Oreille River, 100% on the Columbia at the International Boundary and 74% on the Kettle River. January 1 snow cover was 89% of average in the Pend Oreille Basin River Basin. Bunchgrass Meadows SNOTEL site had 12.4 inches of snow water on the snow pillow. Normally Bunchgrass would have 12.6 inches on January 1. Precipitation during December was 164% of average, bringing the year-to-date precipitation to 116% of average. Reservoir storage in the basin, including Lake Pend Oreille and Priest Lake was 130% of normal. Average temperatures were 2 degrees above normal for December and 1 degree above normal for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - January 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
PEND OREILLE Lake Inflow (2)	APR-JUL	7045	9519	11200	88	12881	15355	12700
	APR-SEP	7756	10461	12300	89	14139	16844	13900
PRIEST near Priest River (1,2)	APR-JUL	410	654	765	94	876	1120	815
	APR-SEP	446	700	815	94	930	1184	870
PEND OREILLE bl Box Canyon (2)	APR-JUL	7905	10046	11500	89	12954	15095	12900
	APR-SEP	8056	10761	12600	89	14439	17144	14100
COLVILLE at Kettle Falls	APR-JUL	19.0	67	100	78	133	181	128
	APR-SEP	20	73	110	78	147	200	141
KETTLE near Laurier	APR-JUL	1365	1612	1780	95	1948	2195	1870
	APR-SEP	1416	1692	1880	95	2068	2344	1970
COLUMBIA at Birchbank (1,2)	APR-JUL	27707	33410	36000	103	38590	44293	34900
	APR-SEP	34513	41656	44900	103	48144	55287	43500
COLUMBIA at Grand Coulee Dm (1,2)	APR-JUL	37776	48245	53000	99	57755	68224	53800
	APR-SEP	44845	57330	63000	98	68670	81155	64000

COLVILLE - PEND OREILLE RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ROOSEVELT	5232.0	4540.0	4869.5	4471.2

COLVILLE - PEND OREILLE RIVER BASINS
Watershed Snowpack Analysis - January 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
COLVILLE RIVER	0	0	0
PEND OREILLE RIVER	9	115	95
KETTLE RIVER	1	55	82

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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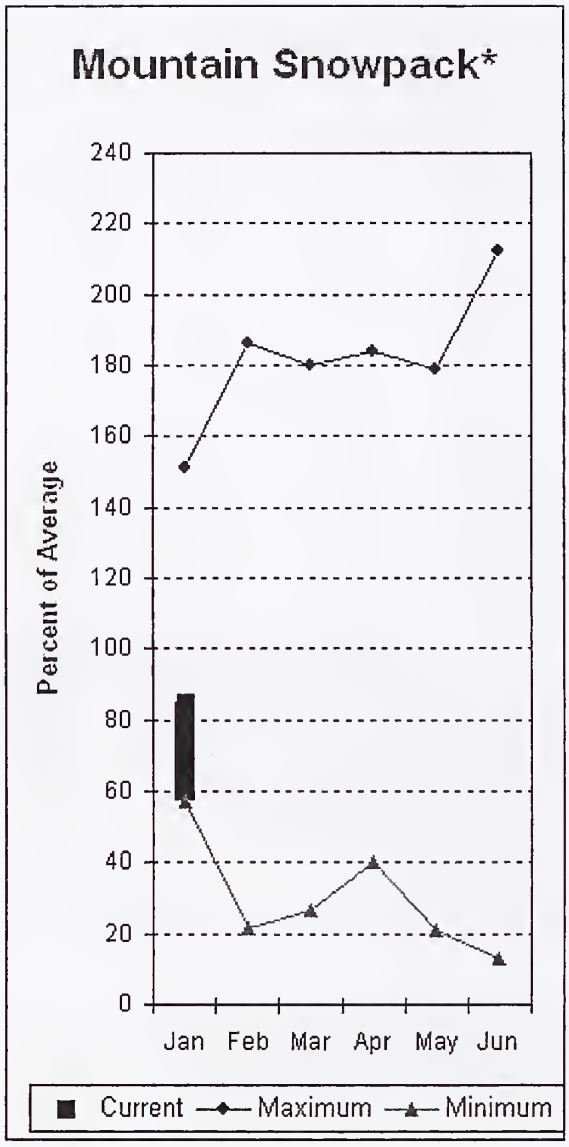
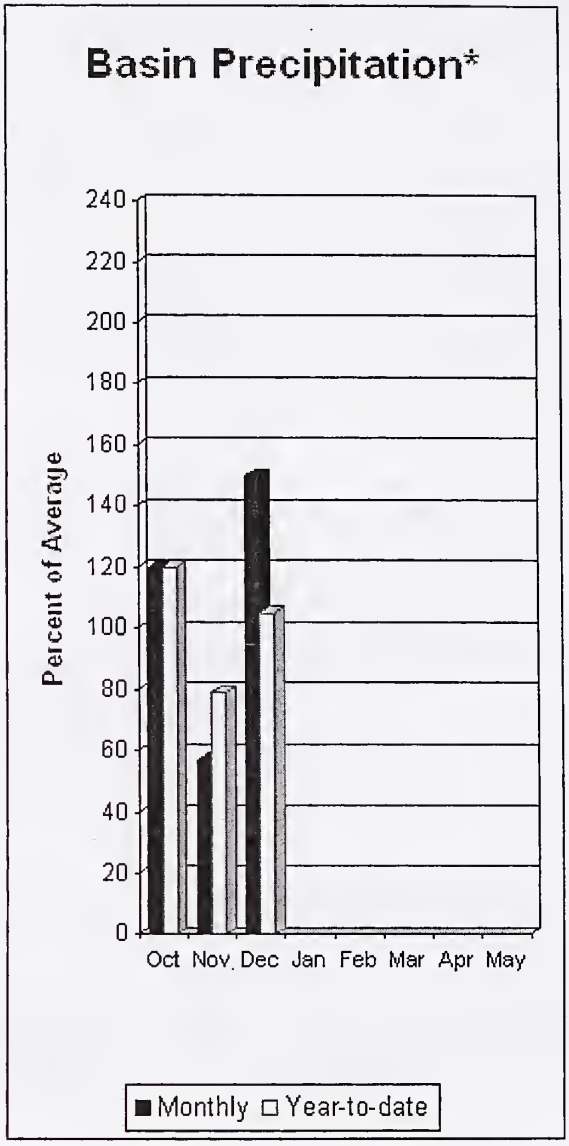
Okanogan - Methow River Basins





*Based on selected stations

Summer runoff average forecast for the Okanogan River is 93%, Similkameen River is 95% and Methow River is 92%. Salmon Creek should be expected to have near normal flows as well. January 1 snow cover on the Okanogan was 95% of average, Omak Creek was 72% and the Methow was 87%. December precipitation in the Okanogan-Methow was 163% of average, with precipitation for the water year at 113% of average. December streamflow for the Methow River was 92% of average, 103% for the Okanogan River and 134% for the Similkameen. Snow-water content at Salmon Meadows SNOTEL was 4.5 inches. Average for this site is 5.3 inches on January 1. Combined storage in the Conconully Reservoirs was 14,000-acre feet, which is 61% of capacity and 89% of the January 1 average. Temperatures were 2 degrees below normal for December and 1 degree below for the water year.

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Streamflow Forecasts - January 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Similkameen R nr Nighthawk (1)	APR-JUL	830	1140	1280	95	1420	1730	1350
	APR-SEP	895	1230	1380	95	1530	1860	1450
Okanogan R nr Tonasket (1)	APR-JUL	715	1230	1470	93	1710	2230	1580
	APR-SEP	775	1380	1650	93	1920	2530	1770
Okanogan R at Malott (1)	APR-JUL	735	1270	1520	93	1770	2310	1635
	APR-SEP	785	1410	1700	93	1990	2610	1826
Methow R nr Pateros	APR-SEP	615	790	910	92	1030	1210	985
	APR-JUL	555	720	835	92	950	1120	910

OKANOGAN - METHOW RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
SALMON LAKE	10.5	7.8	9.5	8.5
CONCONULLY RESERVOIR	13.0	6.6	6.6	7.7

OKANOGAN - METHOW RIVER BASINS
Watershed Snowpack Analysis - January 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
OKANOGAN RIVER	8	74	95
OMAK CREEK	1	49	72
SANPOIL RIVER	0	0	0
SIMILKAMEEN RIVER	1	63	102
TOATS COULEE CREEK	0	53	0
CONCONULLY LAKE	1	53	85
METHOW RIVER	3	72	87

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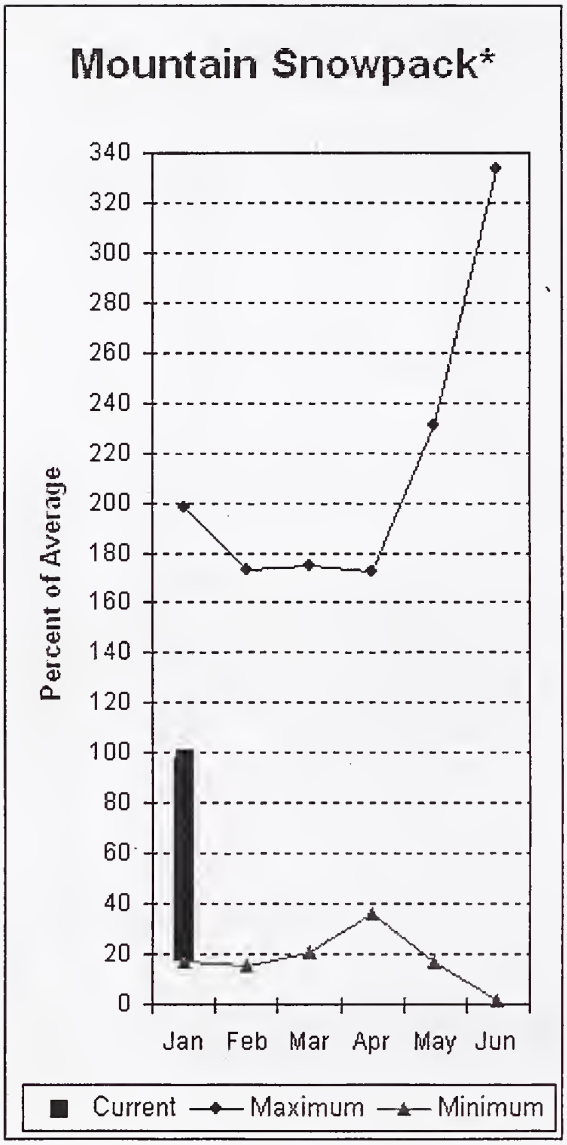
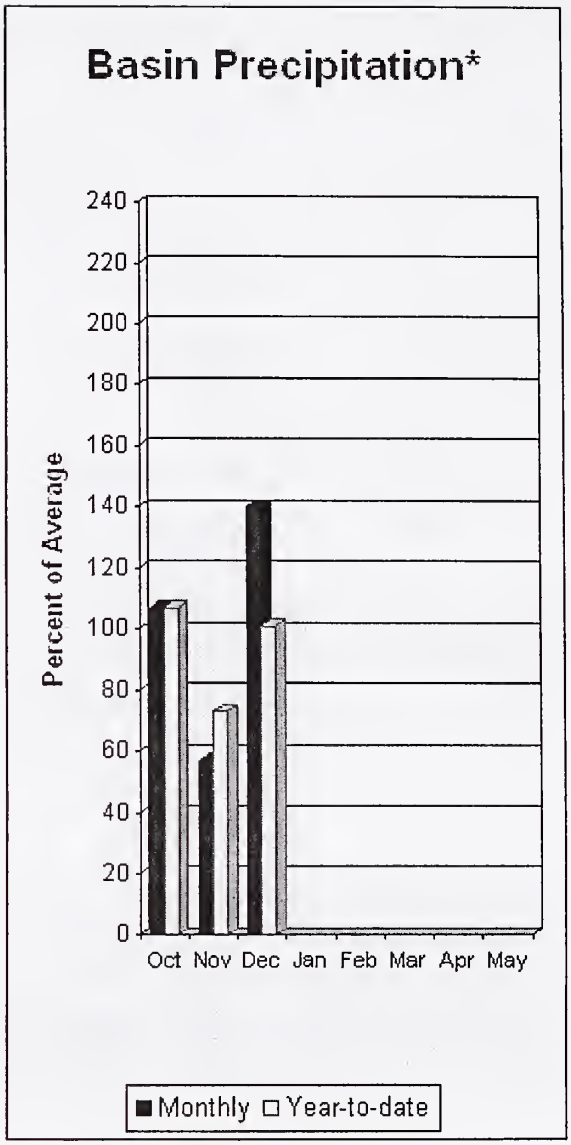
Wenatchee - Chelan River Basins





*Based on selected stations

Precipitation during December was 140% of average in the basin and 101% for the year-to-date. Runoff for Entiat River is forecast to be 92% of average for the summer. The January-September average forecast for Chelan River is 98%, Wenatchee River at Plain is 101%, Stehekin River is 99% and Icicle Creek is 100%. Stemilt and Squilchuck creeks should have near average flows as well. December average streamflows on the Chelan River were 124% and on the Wenatchee River 103%. January 1 snowpack in the Wenatchee River Basin was 101% of average; the Chelan, 89%; the Entiat, 114%; Stemilt Creek, 97% and Colockum Creek, 89%. Reservoir storage in Lake Chelan was 346,000-acre feet, 87% of January 1 average and 51% of capacity. Lyman Lake SNOTEL had the most snow water with 23 inches of water. This site would normally have 29.7 inches on January 1. Temperatures were 1 degree below normal for December and for the water year.

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Streamflow Forecasts - January 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Stehekin R at Stehekin	APR-JUL	540	630	695	99	760	850	700
	APR-SEP	650	750	820	99	890	990	830
Chelan R at Chelan (2)	APR-JUL	830	950	1030	98	1110	1230	1050
	APR-SEP	920	1060	1160	98	1260	1400	1190
Entiat R nr Ardenvoir	APR-JUL	148	182	205	95	230	260	215
	APR-SEP	159	195	220	92	245	280	240
Wenatchee R at Plain	APR-JUL	810	970	1080	101	1190	1350	1070
	APR-SEP	895	1070	1190	101	1310	1490	1180
Icicle Ck nr Leavenworth	APR-JUL	245	285	310	100	335	375	310
	APR-SEP	270	315	340	100	370	415	340
Wenatchee R at Peshastin	APR-JUL	1140	1350	1490	101	1630	1840	1480
	APR-SEP	1260	1490	1650	101	1810	2040	1630
Columbia R bl Rock Island Dam (2)	APR-JUL	42000	52100	59000	100	65900	76000	59000
	APR-SEP	53600	62900	69300	100	75700	85000	69500

WENATCHEE - CHELAN RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CHELAN LAKE	676.1	346.3	485.2	396.9

WENATCHEE - CHELAN RIVER BASINS
Watershed Snowpack Analysis - January 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
CHELAN LAKE BASIN	4	75	89
ENTIAT RIVER	1	90	114
WENATCHEE RIVER	7	75	101
STEMILT CREEK	1	65	97
COLOCKUM CREEK	1	64	89

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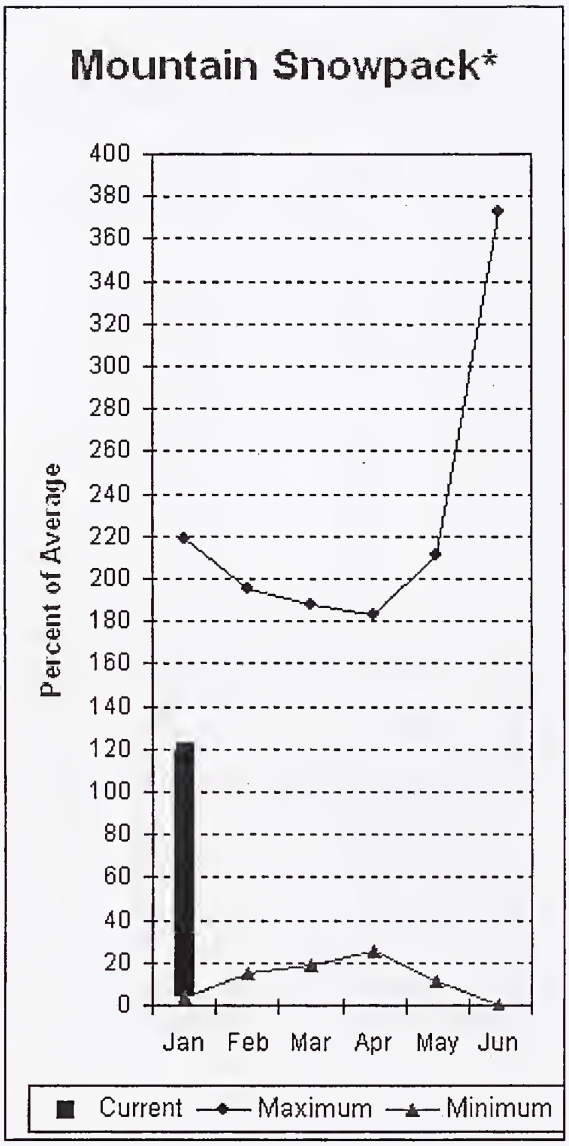
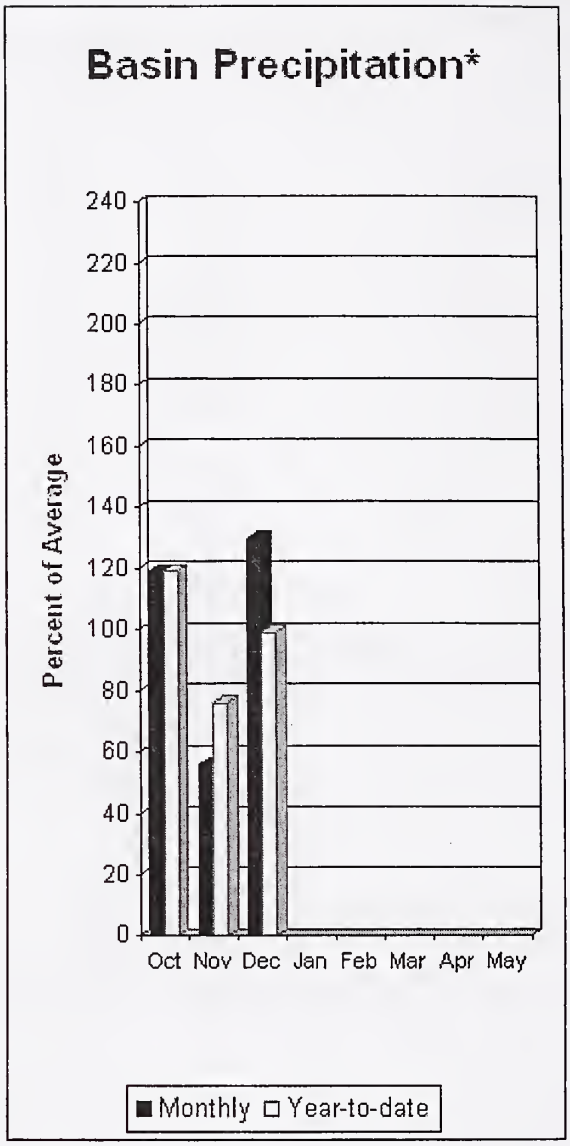
Upper Yakima River Basin





*Based on selected stations

January 1 reservoir storage for the Upper Yakima reservoirs was 326,000-acre feet, 82% of average. Forecasts for the Yakima River at Cle Elum are 106% of average and the Teanaway River near Cle Elum is at 128%. Lake inflows are all forecasted to be slightly above this summer. December streamflows within the basin were Yakima near Cle Elum at 81% and Cle Elum River near Roslyn at 106%. January 1 snowpack was 119% based upon 9 snow course and SNOTEL readings within the Upper Yakima Basin. Precipitation was 130% of average for December and 99% year-to-date for water. Volume forecasts for the Yakima Basin are for natural flow. As such, they may differ from the U.S. Bureau of Reclamation's forecast for the total water supply available, which includes irrigation return flow.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - January 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Keechelus Reservoir Inflow (2)	APR-JUL	92	115	130	106	145	168	123
	APR-SEP	103	126	142	106	158	181	134
Kachess Reservoir Inflow (2)	APR-JUL	84	105	120	107	135	156	112
	APR-SEP	92	113	127	107	141	162	119
Cle Elum Lake Inflow (2)	APR-JUL	315	380	425	104	470	535	410
	APR-SEP	355	425	470	104	515	585	450
Yakima R at Cle Elum (2)	APR-JUL	625	765	860	106	955	1100	810
	APR-SEP	690	840	940	106	1040	1190	890
Teanaway R bl Forks nr Cle Elum	APR-JUL	117	151	174	130	197	230	134
	APR-SEP	120	154	177	128	200	235	138

UPPER YAKIMA RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
KEECHELUS	157.8	60.2	70.5	78.0
KACHESS	239.0	134.4	130.6	125.5
CLE ELUM	436.9	131.1	219.2	194.7

UPPER YAKIMA RIVER BASIN
Watershed Snowpack Analysis - January 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
UPPER YAKIMA RIVER	9	77	119

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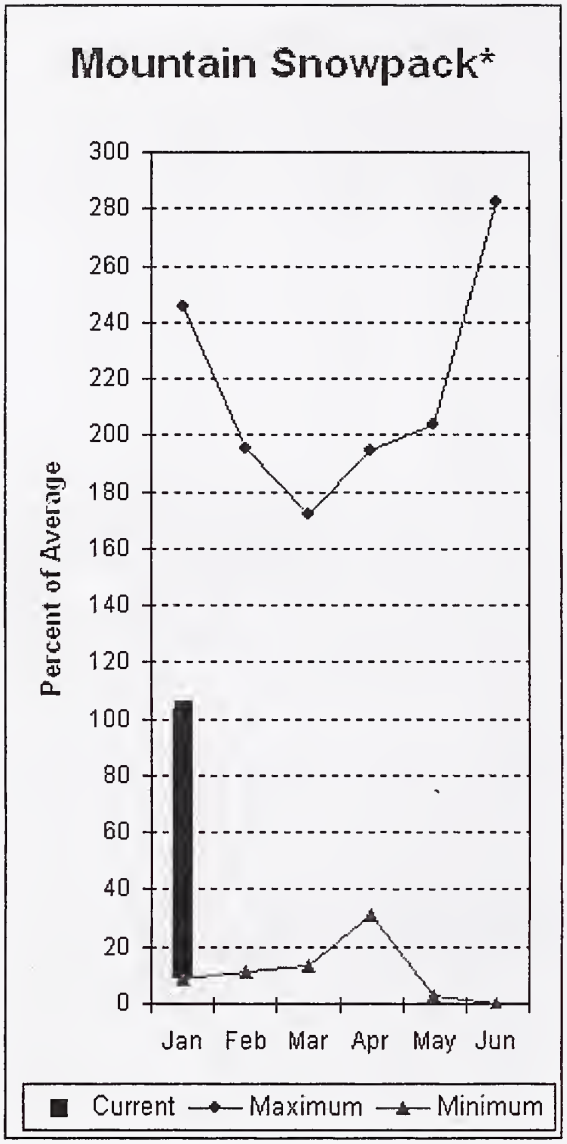
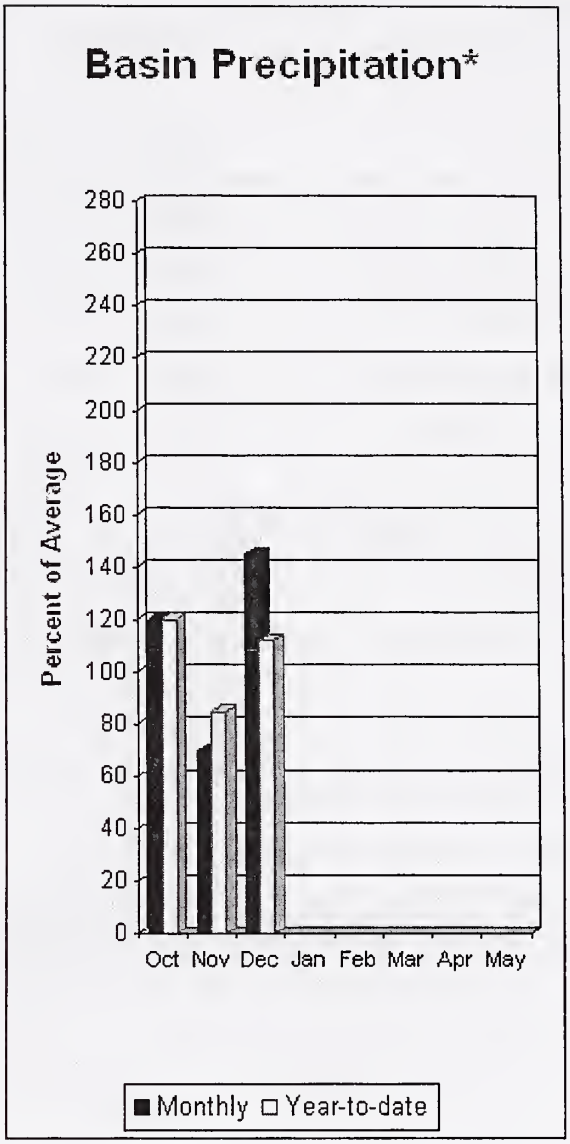
Lower Yakima River Basin





*Based on selected stations

December average streamflows within the basin were: Yakima River near Parker, 94%; Naches River near Naches, 124%; and Yakima River at Kiona, 77%. January 1 reservoir storage for Bumping and Rimrock reservoirs was 114,000-acre feet, 102% of average. Forecast averages for Yakima River near Parker are 100%; American River near Nile, 105%; Ahtanum Creek, 97%; and Klickitat River near Glenwood, 99%. January 1 snowpack was 103% based upon 8 snow course and SNOTEL readings within the Lower Yakima Basin and Ahtanum Creek reported in at 98%of average. Precipitation was 145% of average for December and 112% year-to-date for water. Temperatures were near normal December and for the water year. Volume forecasts for Yakima Basin are for natural flow. As such, they January differ from the U.S. Bureau of Reclamation's forecast for the total water supply available, which includes irrigation return flow.

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Streamflow Forecasts - January 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Bumping Lake Inflow (2)	APR-JUL	91	110	122	99	134	153	123
	APR-SEP	99	119	132	99	145	165	134
American R nr Nile	APR-JUL	87	103	114	106	125	141	108
	APR-SEP	94	112	124	105	136	154	118
Rimrock Lake Inflow (2)	APR-JUL	148	174	192	96	210	235	200
	APR-SEP	180	210	230	96	250	280	240
Naches R nr Naches (2)	APR-JUL	555	670	750	104	830	945	720
	APR-SEP	595	725	810	104	895	1020	780
Ahtanum Ck at Union Gap	APR-JUL	13.8	23	29	97	35	44	30
	APR-SEP	15.4	25	31	97	37	47	32
Yakima R nr Parker (2)	APR-JUL	1270	1570	1780	99	1990	2290	1800
	APR-SEP	1430	1760	1980	100	2200	2530	1990
KLICKITAT near Glenwood	APR-JUL	99	124	140	111	156	181	126
	APR-SEP	116	143	161	99	179	206	163

LOWER YAKIMA RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BUMPING LAKE	33.7	17.9	16.6	10.3
RIMROCK	198.0	96.2	120.8	101.1

LOWER YAKIMA RIVER BASIN
Watershed Snowpack Analysis - January 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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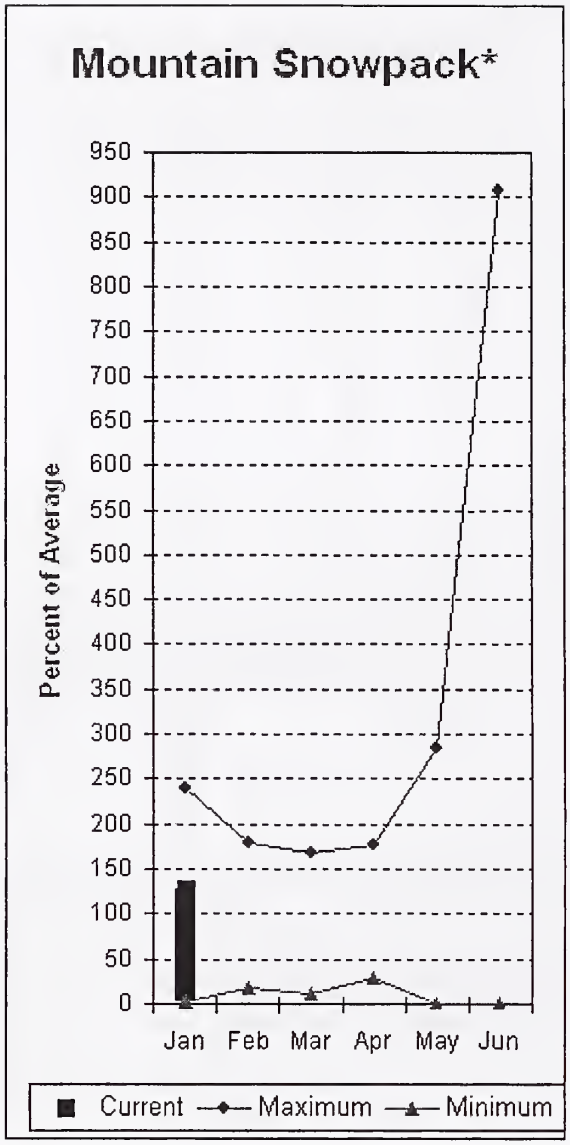
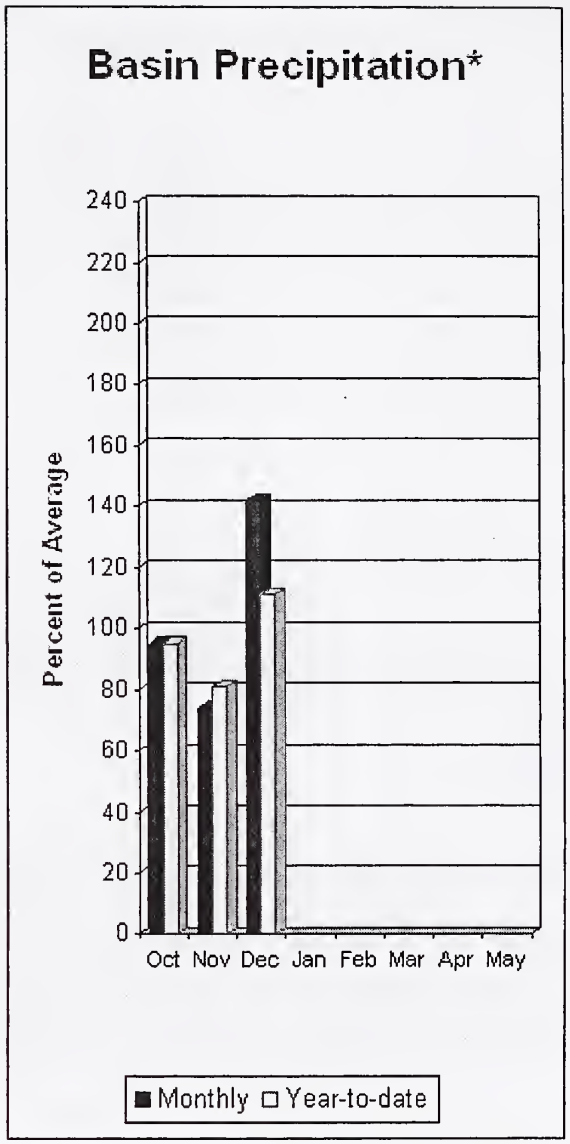
The value listed under 70% is actually a 75% exceedance level.

Walla Walla River Basin





*Based on selected stations

December precipitation was 143% of average, maintaining the year-to-date precipitation at 112% of average. Snowpack in the basin was 127% of average. Streamflow forecasts are 107% of average for Mill Creek and 107% for the SF Walla Walla near Milton-Freewater. December streamflow was 99% of average for the Walla Walla River. Average temperatures were 2 degrees above normal for December and 1-2 degrees above average for the water year. A new SNOTEL site named Milkshakes was installed, in cooperation with the City of Walla Walla, in the headwaters of Mill Creek. We look forward to having this station provide important climatic information in support of the City's water supply forecasting efforts.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - January 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SF Walla Walla R nr Milton-Freewater	MAR-SEP	72	80	86	106	92	100	81
	APR-SEP	58	66	71	106	76	84	67
Mill Ck nr Walla Walla	APR-JUL	19.2	23	26	108	29	33	24
	APR-SEP	23	27	30	107	33	37	28

WALLA WALLA RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

WALLA WALLA RIVER BASIN
Watershed Snowpack Analysis - January 1, 2008

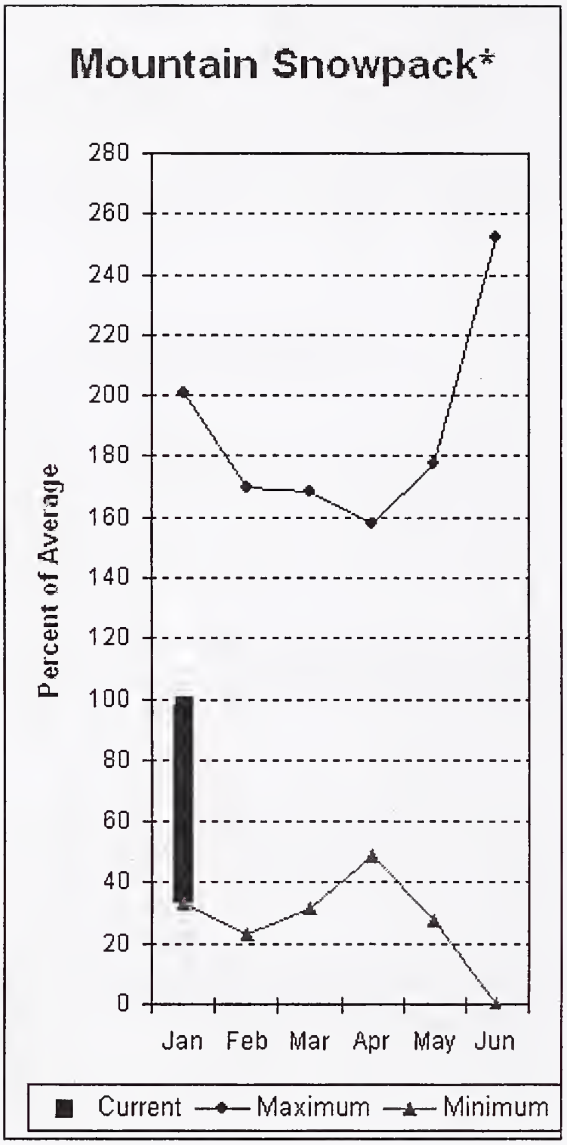
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
WALLA WALLA RIVER	2	109	123

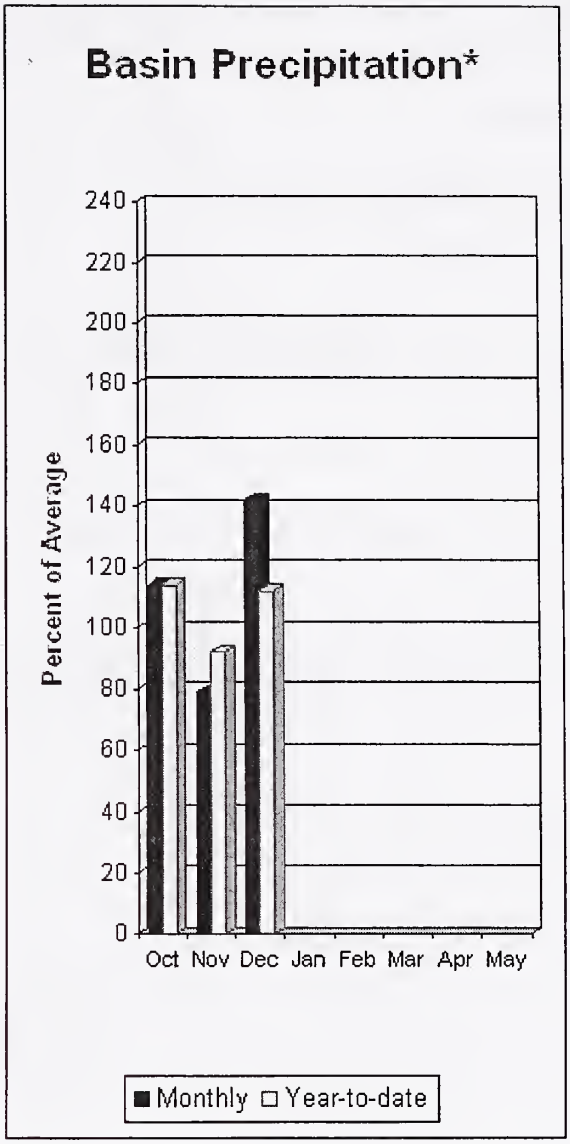
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Lower Snake River Basin





*Based on selected stations

The April - September forecast is for 100% for Clearwater River at Spalding. The Snake and Grande Ronde rivers can expect summer flows to be about 76% and 97% of normal respectively. December precipitation was 141% of average, bringing the year-to-date precipitation to 111% of average. January 1 snowpack readings averaged 98% of normal. December streamflow was 69% of average for Snake River below Lower Granite Dam and 64% for Grande Ronde River near Troy. Average temperatures were 2 degrees above normal for December and for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - January 1, 2008

Forecast Point	Forecast Period	<<======= Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Grande Ronde R at Troy	MAR-JUL	857	1368	1600	101	1832	2343	1580
	APR-SEP	655	1120	1330	97	1540	2000	1370
Clearwater R at Spalding	APR-JUL	4990	6680	7440	100	8200	9890	7430
	APR-SEP	5270	7040	7850	100	8660	10400	7850
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	5230	12700	16100	75	19500	27000	21600
	APR-SEP	6180	14600	18400	76	22200	30600	24100

LOWER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

LOWER SNAKE RIVER BASIN
Watershed Snowpack Analysis - January 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
LOWER SNAKE, GRANDE RONDE	10	119	98

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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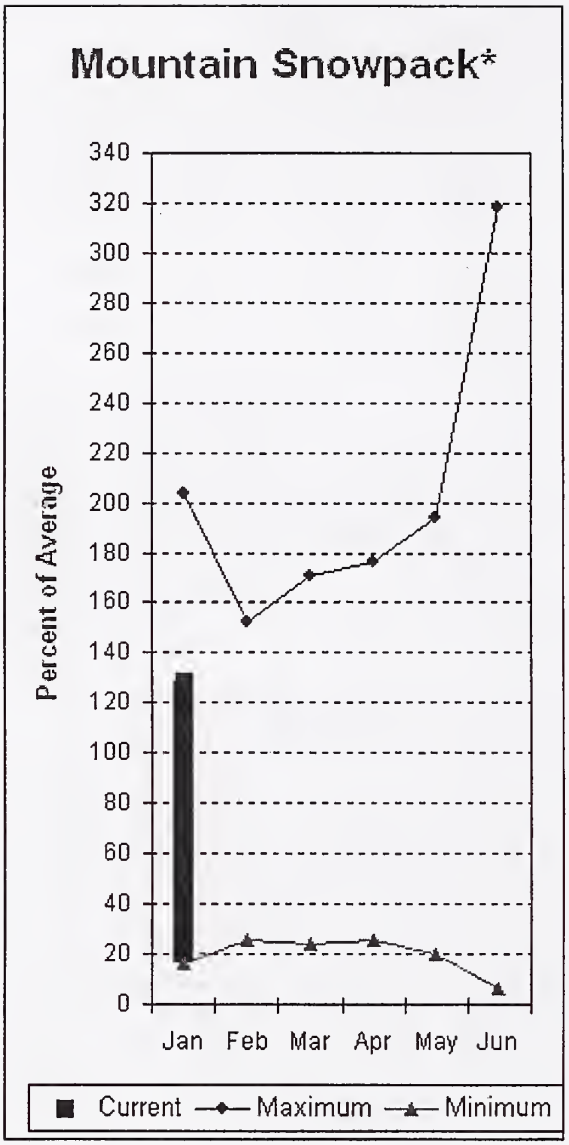
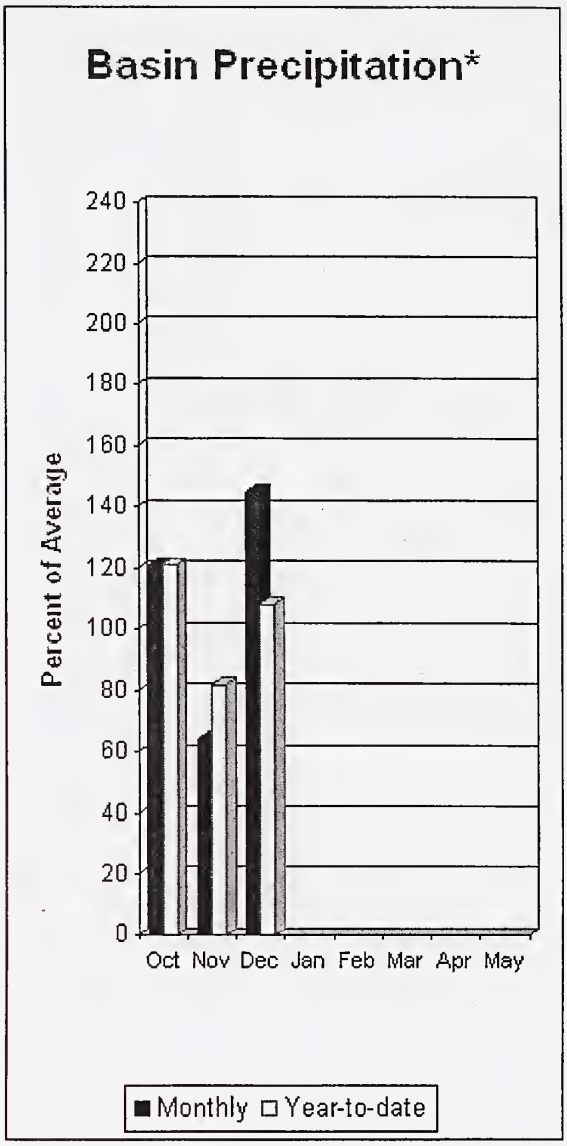
Cowlitz - Lewis River Basins





*Based on selected stations

Forecasts for April – September streamflows within the basin are Lewis River at Ariel, 106% and Cowlitz River at Castle Rock, 103% of average. The Columbia at The Dalles is forecasted to have 95% of average flows this summer. December average streamflow for Cowlitz River was 90% and 100% for Lewis River. The Columbia River at The Dalles was 80% of average. December precipitation was 145% of average and the water-year average was 109%. January 1 snow cover for Cowlitz River was 120%, and Lewis River was 135% of average. Average temperatures have been near normal during December and 1-2 degrees colder than normal for the water year. A new SNOTEL site named Pepper Creek was installed, in cooperation with PacifiCorp, in the Lewis River Basin. We look forward to utilizing this data to help enhance forecasting efforts in the basin.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - January 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Columbia R at The Dalles (2)	APR-JUL	55300	70300	80400	95	90500	105000	84600
	APR-SEP	70500	84200	93500	95	103000	116000	98600
KLICKITAT near Glenwood	APR-JUL	99	124	140	111	156	181	126
	APR-SEP	116	143	161	99	179	206	163
LEWIS at Ariel (2)	APR-JUL	825	986	1095	106	1204	1365	1031
	APR-SEP	973	1138	1250	106	1362	1527	1176
COWLITZ R. bl Mayfield Dam (2)	APR-JUL	1336	1606	1790	106	1974	2244	1689
	APR-SEP	1536	1830	2030	106	2230	2524	1922
COWLITZ R. at Castle Rock (2)	APR-JUL	1859	2163	2370	103	2577	2881	2295
	APR-SEP	2129	2475	2710	103	2945	3291	2639

COWLITZ - LEWIS RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MOSSYROCK	0.0	1216.7	1253.8	---
SWIFT	0.0	636.1	661.6	---
YALE	0.0	348.1	264.2	---
MERWIN	0.0	387.5	404.6	---

COWLITZ - LEWIS RIVER BASINS
Watershed Snowpack Analysis - January 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
LEWIS RIVER	5	100	135
COWLITZ RIVER	6	93	120

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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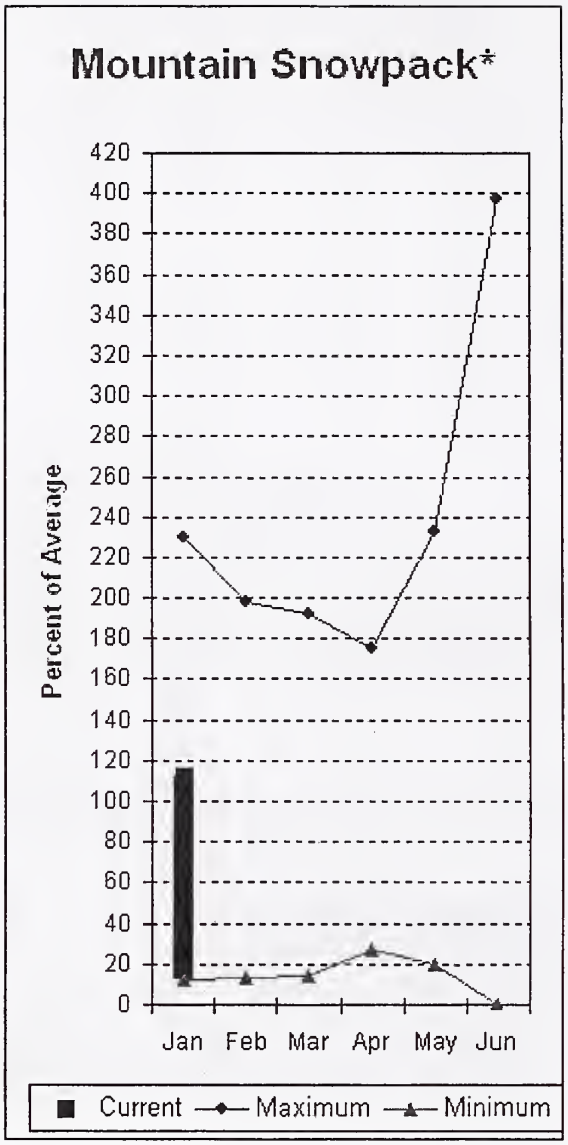
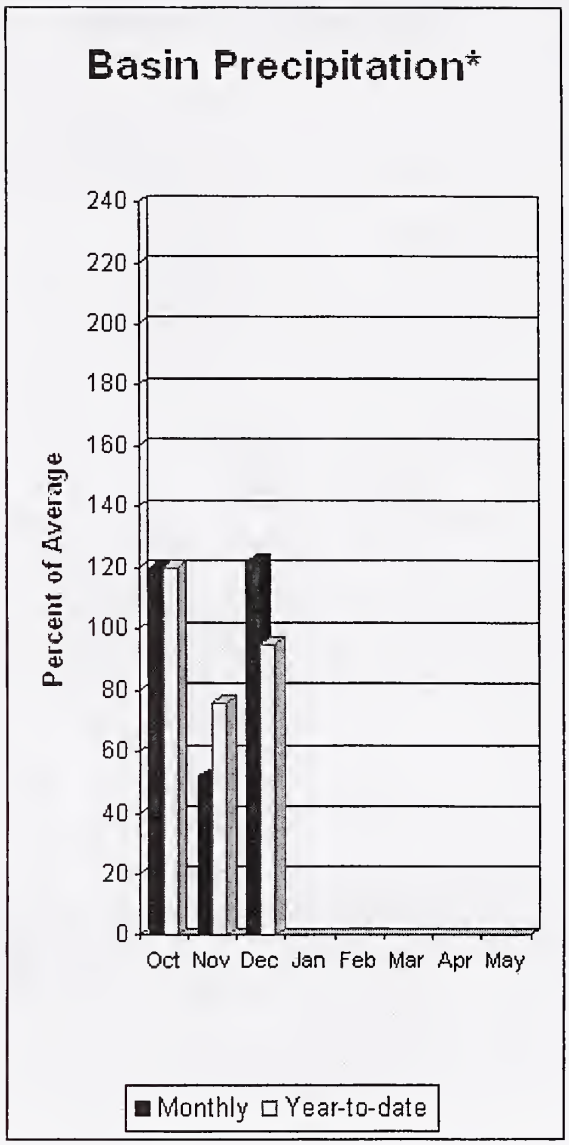
The value listed under 70% is actually a 75% exceedance level.

White - Green River Basins





*Based on selected stations

Summer runoff is forecast to be 90% of normal for the Green River below Howard Hanson Dam and 98% for the White River near Buckley. January 1 snowpack was 104% of average for the White River, 112 % for Puyallup River and 119% in the Green River Basin. Water content on January 1 at Corral Pass SNOTEL, at an elevation of 6,000 feet, was 13.6 inches. This site has a January 1 average of 15.8 inches. December precipitation was 118% of average, bringing the water year-to-date to 93% of average for the basins. Average temperatures in the area were near normal for December and for the water-year. A new SNOTEL site named Lynn Lake was installed, in cooperation with the City of Tacoma, in the Green River Basin. We look forward to having this site, co-located with the historic manual snow course, to enhance water supply forecasting efforts.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - January 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WHITE near Buckley (1,2)	APR-JUL	307	395	435	99	475	563	440
	APR-SEP	379	479	525	98	571	671	534
GREEN R below Howard Hansen (1,2)	APR-JUL	114	187	220	91	253	326	243
	APR-SEP	131	207	242	90	277	353	268

WHITE - GREEN - PUYALLUP RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

WHITE - GREEN - PUYALLUP RIVER BASINS
Watershed Snowpack Analysis - January 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
WHITE RIVER	3	77	104
GREEN RIVER	2	78	119
PUYALLUP RIVER	5	87	112

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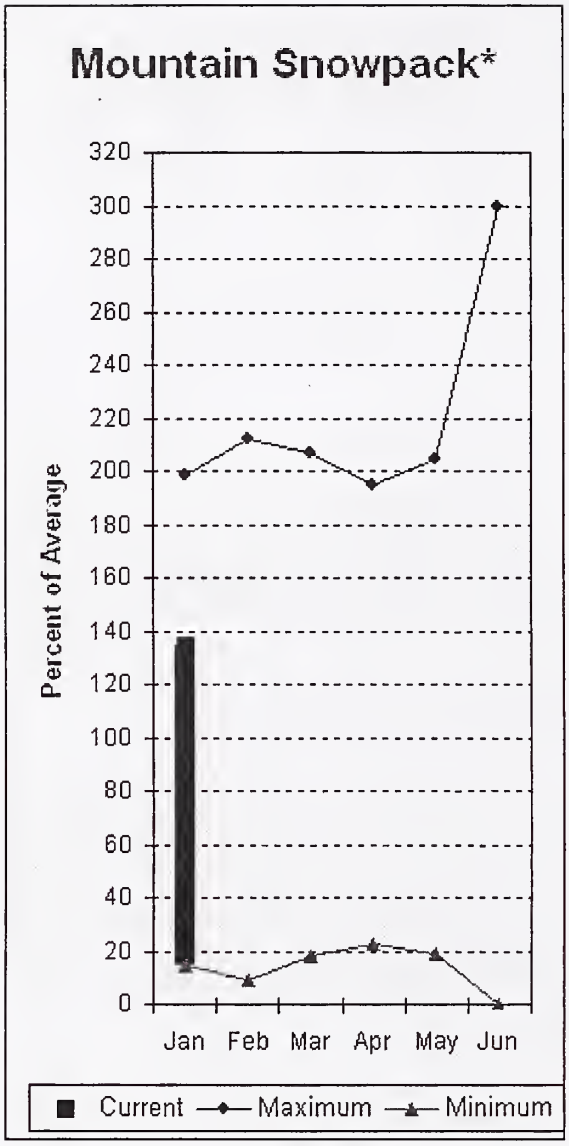
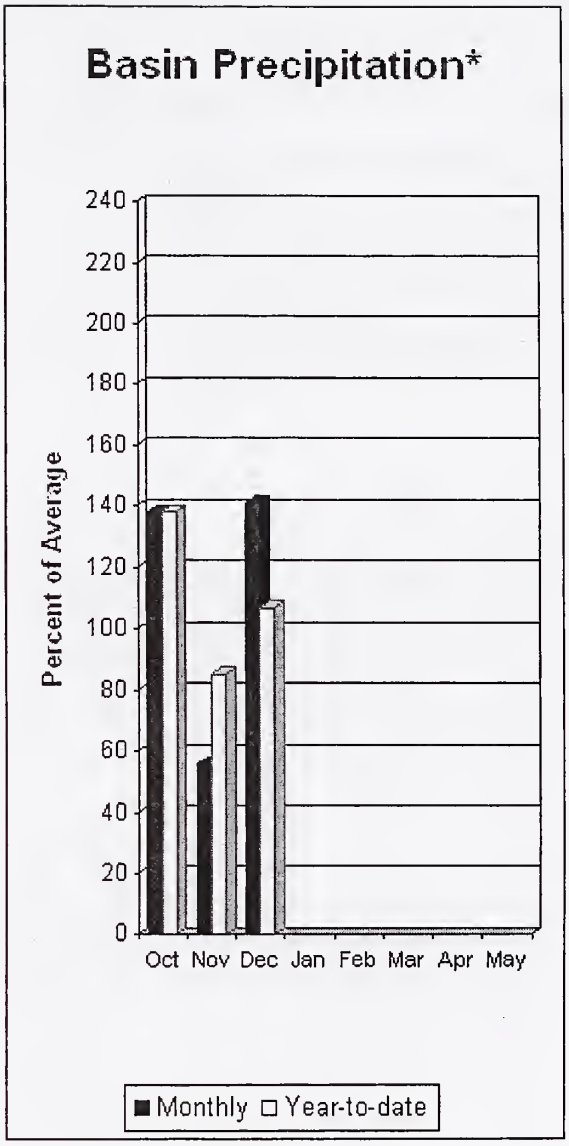
The value listed under 70% is actually a 75% exceedance level.

Central Puget Sound River Basins





*Based on selected stations

Forecast for spring and summer flows are: 95% for Cedar River near Cedar Falls; 93% for Rex River; 85% for South Fork of the Tolt River; and 110% for Cedar River at Cedar Falls. Basin-wide precipitation for December was 125% of average, bringing water-year-to-date to 97% of average. January 1 average snow cover in Cedar River Basin was 161%, Tolt River Basin was 141%, Snoqualmie River Basin was 122%, and Skykomish River Basin was 114%. Olallie Meadows SNOTEL site, at 3960 feet, had 24.9 inches of water content. Average January 1 water content is 22.2 inches at Olallie Meadows. Temperatures were near average for December and 1 degree below normal for the water-year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - January 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
CEDAR near Cedar Falls	APR-JUL	48	61	70	96	79	92	73
	APR-SEP	54	67	76	95	85	98	80
REX near Cedar Falls	APR-JUL	15.3	20	24	96	28	33	25
	APR-SEP	17.5	23	26	93	29	35	28
CEDAR RIVER at Cedar Falls	APR-JUL	33	60	78	105	96	123	74
	APR-SEP	32	61	80	110	99	128	73
SOUTH FORK TOLT near Index	APR-JUL	5.8	9.8	12.5	85	15.2	19.2	14.7
	APR-SEP	8.5	12.0	14.4	85	16.8	20	16.9

CENTRAL PUGET SOUND RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

CENTRAL PUGET SOUND RIVER BASINS
Watershed Snowpack Analysis - January 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
CEDAR RIVER	4	84	161
TOLT RIVER	2	115	141
SNOQUALMIE RIVER	4	93	122
SKYKOMISH RIVER	2	102	114

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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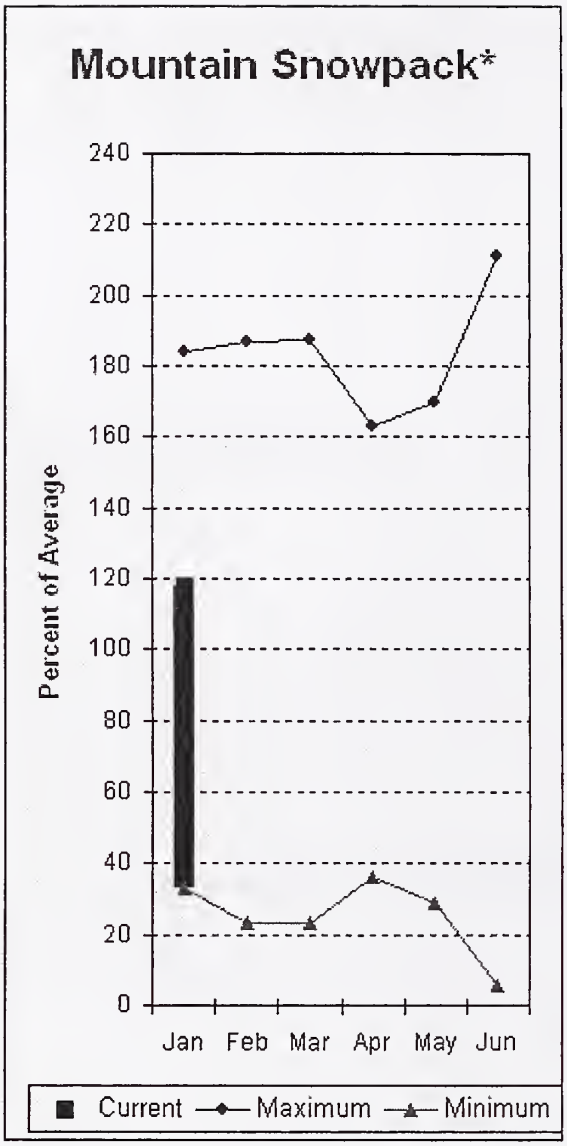
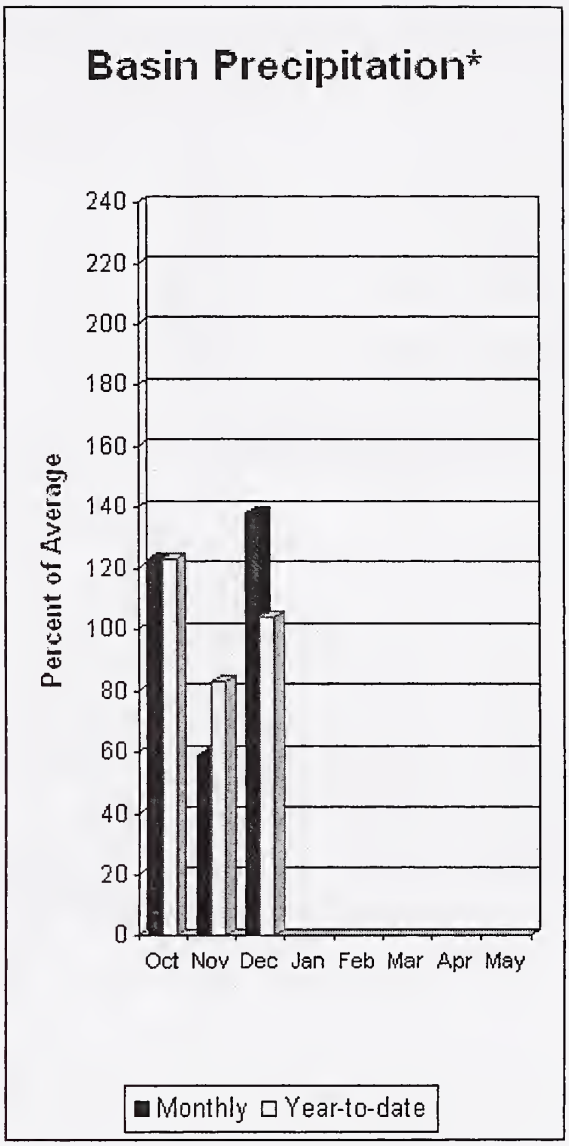
North Puget Sound River Basins





*Based on selected stations

Forecast for Skagit River streamflow at Newhalem is 104% of average for the spring and summer period. December streamflow in Skagit River was 113% of average. Other forecast points included Baker River at 102% and Thunder Creek at 110% of average. Basin-wide precipitation for December was 141% of average, bringing water-year-to-date to 104% of average. January 1 average snow cover in Skagit River Basin was 91%, and Nooksack River Basin was 146%. Baker River Basin snow surveys were not conducted this month. Rainy Pass SNOTEL, at 4,780 feet, had 16.4 inches of water content. Average January 1 water content is 19.9 inches at Rainy Pass. January 1 Skagit River reservoir storage was 103% of average and 85% of capacity. Average temperatures for December were 1 degree above normal for the basin and 1-2 degrees below average for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - January 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
THUNDER CREEK near Newhalem	APR-JUL	214	238	255	109	272	296	234
	APR-SEP	320	348	367	110	386	414	333
SKAGIT at Newhalem (2)	APR-JUL	1569	1784	1930	104	2076	2291	1864
	APR-SEP	1909	2142	2300	104	2458	2691	2217
BAKER RIVER near Concrete	APR-JUL	677	780	850	103	920	1023	828
	APR-SEP	837	976	1070	102	1164	1303	1050

NORTH PUGET SOUND RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ROSS	1404.1	1179.0	1221.2	1142.1
DIABLO RESERVOIR	90.6	86.4	86.3	85.3

NORTH PUGET SOUND RIVER BASINS
Watershed Snowpack Analysis - January 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
SKAGIT RIVER	5	74	91
BAKER RIVER	0	55	0
NOOKSACK RIVER	2	63	146

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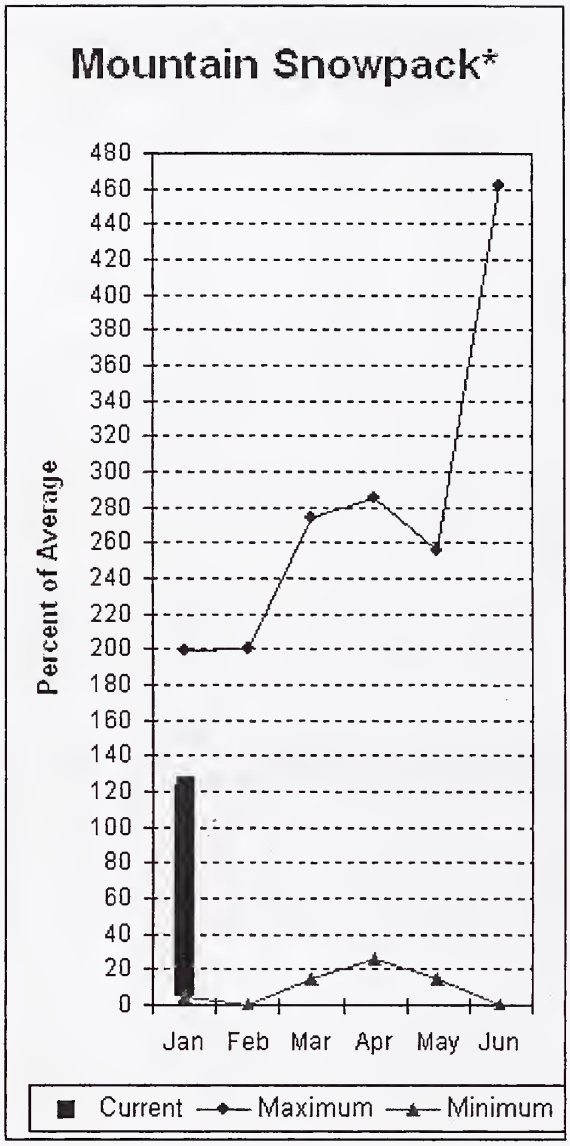
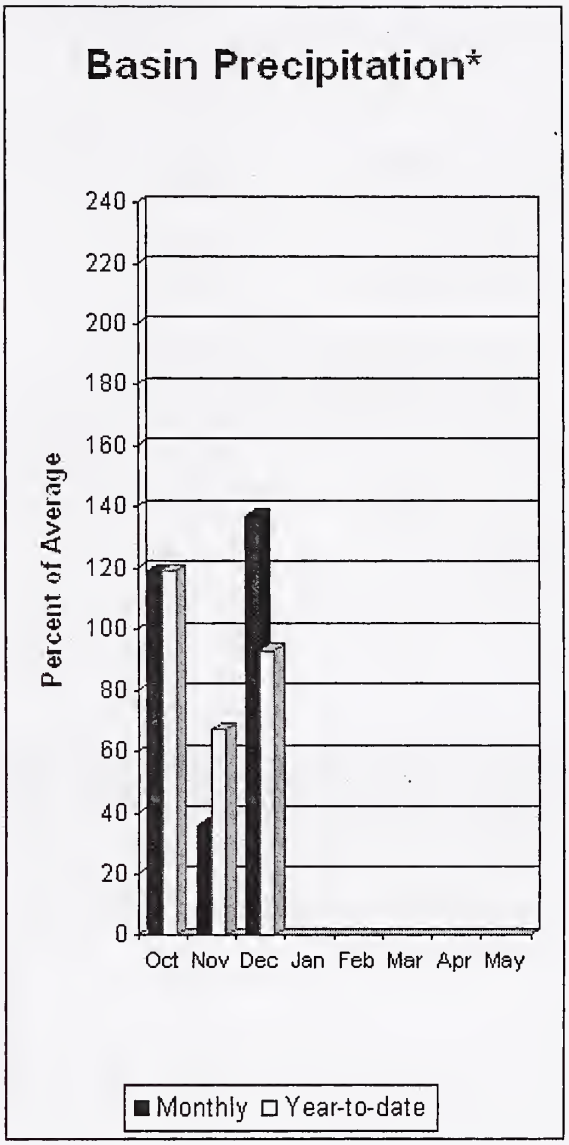
Olympic Peninsula River Basins





*Based on selected stations

Forecasted average runoff for streamflow for both the Dungeness and Elwha rivers is 110%. December runoff in the Dungeness River was 108% of normal. Big Quilcene and Wynoochee rivers should expect near average runoff this summer also. December precipitation was 174% of average. Precipitation has accumulated at 108% of average for the water year. December precipitation at Quillayute was 17.36 inches. The thirty-year average for December is 14.5 inches. Olympic Peninsula snowpack averaged 123% of normal on January 1. Temperatures were 1 degree below average for December and 1 and for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - January 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DUNGENESS near Sequim	APR-JUL	75	111	136	110	161	197	124
	APR-SEP	80	132	167	110	202	254	152
ELWHA near Port Angeles	APR-JUL	414	441	460	110	479	506	419
	APR-SEP	499	533	555	110	577	611	503

OLYMPIC PENINSULA RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

OLYMPIC PENINSULA RIVER BASINS
Watershed Snowpack Analysis - January 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
OLYMPIC PENINSULA	3	60	123

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The value listed under 70% is actually a 75% exceedance level.

Issued by

Arlen Lancaster
Chief
Natural Resources Conservation Service
U.S. Department of Agriculture

Released by

R.L. "Gus" Hughbanks
State Conservationist
Natural Resources Conservation Service
Spokane, Washington

The Following Organizations Cooperate with the Natural Resources Conservation Service in Snow Survey Work*:

Canada	Ministry of Sustainable Resources
	Snow Survey, River Forecast Centre, Victoria, British Columbia
State	Washington State Department of Ecology
	Washington State Department of Natural Resources
Federal	Department of the Army
	Corps of Engineers
	U.S. Department of Agriculture
	Forest Service
	U.S. Department of Commerce
	NOAA, National Weather Service
	U.S. Department of Interior
	Bonneville Power Administration
	Bureau of Reclamation
	Geological Survey
	National Park Service
	Bureau of Indian Affairs
	Recourse Conservation & Development Councils
Local	City of Tacoma
	City of Seattle
	Chelan County P.U.D.
	Pacific Power and Light Company
	Puget Sound Power and Light Company
	Washington Water Power Company
	Snohomish County P.U.D.
	Colville Confederated Tribes
	Spokane County
	Yakama Indian Nation
	Whatcom County
	Pierce County
	Kalispel Tribe of Indians
	Spokane Indian Tribe
	Jamestown S'klallum Tribe
Private	Okanogan Irrigation District
	Wenatchee Heights Irrigation District
	Newman Lake Homeowners Association
	Whitestone Reclamation District

*Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

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Washington Water Supply Outlook Report

Natural Resources Conservation Service
Spokane, WA